

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

HONEYWELL INTERNATIONAL INC.
and HONEYWELL INTELLECTUAL
PROPERTIES INC.,

Plaintiffs,

v

HAMILTON SUNDSTRAND CORP.,

Defendant.

C.A. No. 99-309-GMS

**DEFENDANT HAMILTON SUNDSTRAND CORPORATION'S
TRIAL BRIEF**

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INTRODUCTION

The sole question in this remand proceeding is whether Honeywell can overcome the presumption under *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 741 (2002), that it surrendered all equivalents to the inlet guide vane limitation (the “IGV limitation”) that was used to narrow the scope of its patent claims and gain allowance. *Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1144 (Fed. Cir. 2004) (en banc), *cert. denied*, 125 S.Ct. 2928 (2005). The *en banc* Federal Circuit held that “[i]n this case there is a presumptive surrender of all equivalents to the inlet guide vane limitation.” *Id.* The Court must determine whether Honeywell can meet its burden to overcome this presumption, under the criteria set forth in *Festo*, with respect to the allegedly equivalent feature in HSC’s APS 3200 APU. *Id.* at 1146.

Two determinations made by the Federal Circuit can guide this Court’s analysis: (1) the definition of the narrowing amendment that created the estoppel; and (2) the definition of the particular aspect of the APS 3200 that allegedly satisfied by equivalence the IGV limitation that Honeywell added to the claims.

First, the narrowing amendment was Honeywell’s addition of the IGV limitation to original claims that lacked this limitation (which were rejected as obvious in light of the prior art) in order to narrow the claim scope and gain allowance. As the Federal Circuit explained, “Claims 4, 8 and 19 were rewritten into independent form, and the original independent claims were cancelled, *effectively adding the inlet guide vane limitation to the claimed invention*.” *Id.* at 1144 (emphasis added). The Federal Circuit therefore held that “Honeywell is presumptively estopped from recapturing equivalents to the inlet guide vane limitation.” *Id.*

Second, the Federal Circuit correctly identified the equivalence theory that Honeywell successfully advanced at trial: that the IGV limitation’s function is “to incorporate the position of the [inlet guide vanes] into the surge control system,” and that the equivalent feature in the APS

3200 is “us[ing] inlet guide vane position ... to efficiently control surge.” *Id.* at 1137 (quoting Honeywell’s appellate brief) Likewise, this Court sustained the infringement verdict based on its conclusion that Honeywell had presented evidence that “the flow-related parameter used by the APS 3200 ... was a direct function of inlet guide vane position.” *Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.*, 166 F. Supp. 2d 1008, 1021 (D. Del. 2001)

Given the Federal Circuit’s definitions of the narrowing amendment and the alleged equivalent, Honeywell cannot overcome presumptive estoppel under any of the three *Festo* criteria: unforeseeability, “tangential relation,” or “some other reason.” Apparently recognizing that it cannot prevail under the Federal Circuit’s findings, Honeywell attempts to avoid them.

First, as to the alleged equivalent, Honeywell maintains that the equivalent is not the APS 3200’s use of a flow-related parameter that is a function of IGV position – as Honeywell successfully argued at trial – but rather every detail of the *entire* “APS 3200 surge control system.” (Hon. Br. 15) This ignores what the Federal Circuit, this Court and the trial record have already identified as the equivalent to the IGV limitation. Under the definition of the equivalent that Honeywell successfully asserted at trial, and which the Federal Circuit and this Court adopted, the equivalent was not unforeseeable at the time of the narrowing amendments in 1982 or 1983. The prior art is full of references showing a flow-related parameter that is a function of IGV position and the use of IGV position to efficiently control surge.

In an attempt to avoid the prior art, Honeywell now asserts that the alleged equivalent requires using a specific flow-related parameter labeled DELPQP that exhibits a “double-solution” curve, such that a given value of the parameter can correspond to different values of flow through the compressor. But when HSC previously argued in summary judgment that the use of IGV position to address the double-solution characteristic was *not* equivalent to the IGV limitation – Honeywell argued (with a declaration from its expert Gerard Muller) that the “double solution”

characteristic had “nothing to do” with the question of infringement and was “irrelevant ” (DTX 351, Hon. Opp. Br. at 22-23; DTX 349, Muller Decl. at ¶34)¹ Based on Honeywell’s arguments, the Court denied HSC’s motion for summary judgment. *Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.*, 2001 U.S. Dist. LEXIS 2155, at *20 (D. Del. Jan. 8, 2001). Honeywell’s current attempt to recast this “irrelevant” feature as the key to equivalence should be rejected.

Even if the Court accepted Honeywell’s new characterization of the equivalent, however, Honeywell would still lose. The flow parameter used by the APS 3200, with its double-solution characteristic, was not only foreseeable in 1982, it was actually used in the load compressor for the L1011 APU manufactured in the 1970s by Hamilton Standard, a predecessor of HSC. Honeywell itself used the same type of flow parameter, with the same type of double-solution characteristic, in the 1980s. And it solved the double-solution issue in the same way as the APS 3200: by using IGV position as part of a test to determine whether airflow through the compressor has reached the level at which the double-solution problem would occur. Critically, Honeywell’s own employee and corporate representative, James Clark, admitted that this flow parameter and its solution were not new, but rather that Honeywell would have solved the “double solution” problem in the same way in the 1970s – long before the 1982 date for assessing unforeseeability here.

Second, Honeywell cannot establish that the rationale for its narrowing amendment bore no more than a tangential relation to the APS 3200’s allegedly equivalent use of IGV position. The reason for the amendments in question – adding the IGV limitation to overcome the prior art – was directly related to the alleged equivalent, which depended on the use of IGV position. Contrary to Honeywell’s assertion, that the prior art cited by the examiner did not disclose the asserted equivalent does not mean the reason for the amendment was merely tangential to the

¹ The materials cited in HSC’s Trial Brief are included, and referenced by trial exhibit number or description, in HSC’s contemporaneously filed Appendix.

equivalent. *Rhodia Chimie v. PPG Industries Inc.*, 402 F.3d 1371, 1383 (Fed. Cir. 2005). In addition, Honeywell's failure to affirmatively explain during prosecution any specific reason for the amendments, other than that they were made to gain allowance, is fatal to Honeywell's attempt to overcome the presumption. The Federal Circuit has made clear that Honeywell bears the burden of showing that the prosecution history affirmatively indicates that the reason for its amendments was merely tangential to the equivalent, not simply that the record is silent on the issue. *Biagro Western Sales, Inc. v. Grow More, Inc.*, 423 F.3d 1296, 1306 (Fed. Cir. 2005); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1372-73 (Fed. Cir. 2003).

Finally, Honeywell offers no valid basis for overcoming the presumption under the "other reason" criteria – a standard the Federal Circuit held in *Festo* "must be a narrow one." 344 F.3d at 1370. Honeywell's contention that estoppel should not apply *now* because a "reasonable patent attorney" would have believed that estoppel did not apply *in 1982* contradicts Federal Circuit law, including *Festo* itself. The Federal Circuit also has rejected Honeywell's argument that the presumption should not apply because a "reasonable patent attorney" would have understood the asserted claims to have covered the APS 3200 literally, a contention that, in any event, the jury and the Court rejected and Honeywell's own lawyers have conceded is not the case.

In sum, as demonstrated in more detail below, Honeywell's attempt to ignore the record and the Federal Circuit's holdings should be rejected. Honeywell cannot meet its burden of overcoming the *Festo* presumption of surrender.

STATEMENT OF FACTS

I. The Prosecution History Of The Patents-In-Suit.

Each of the claims at issue in this remand proceeding – claims 8 and 19 of U.S. Patent No. 4,380,893 ("the '893 patent") and claim 4 of U.S. Patent No. 4,428,194 ("the '194 patent") – requires, among other things, a particular use of IGV position in a surge control system (JTX 30;

JTX 32) Each of the asserted claims was initially dependent on a separate broad independent claim that did not contain any reference to the use of IGVs in a surge control system (JTX 31 at HSB401434-35, 439-40; JTX 33 at HSB401556-57) The following chart shows the relationship of the issued asserted claims to the original application claims:

Application Independent Claim (Rejected)	Application Dependent Claim (IGV Limitation Added)	Issued Claim, Based Upon Dependent Claim
16	17	8 ('893 patent)
32	35	19 ('893 patent)
48 ²	51	4 ('194 patent)

In office actions in 1982 and 1983, the examiner rejected the broad independent claims as obvious in light of prior art. (JTX 31 at HSB401456-58; JTX 33 at HSB401566-67) The examiner indicated that he would allow the dependent claims if “rewritten in independent form” (*Id.*) Honeywell did not dispute the examiner’s rejection of the independent claims or press to obtain their allowance. Nor did Honeywell attempt to draft alternative claims of intermediate scope, covering subject matter between the rejected original broad independent claims and the allowed narrow claims, which required a particular use of IGVs. (Garner Dep. 168-69)³

Instead, Honeywell used the IGV limitation in the dependent claims to overcome the examiner’s obviousness objection to the independent claims. Without any alternative explanation, Honeywell amended its dependent claims by rewriting them into independent form, canceling the original independent claims and “effectively adding the inlet guide vane limitation to the claimed invention.” *Honeywell*, 370 F.3d at 1144. The examiner allowed the newly written claims without further amendment or discussion.

² HSC agrees with Honeywell that the fact that application claim 51 was dependent on application claim 49, which was in turn dependent on application claim 48, is an irrelevant distinction. (Hon. Br. 5 n.1)

³ HSC separately has moved in limine to preclude the testimony of Honeywell’s patent lawyer expert, Melvin Garner. HSC cites Mr. Garner’s deposition only as illustrative.

The primary substantive difference between the original independent claims and the final allowed claims was the addition of the IGV limitation. For instance, Tab A to this brief contains a comparison of application claim 48 (which the examiner rejected as obvious) and corresponding issued claim 4 of the '194 patent. The only difference was the addition of the IGV limitation, found in claim 4(d), and introductory language in the claim preamble.

II. Previous Summary Judgment Rulings.

Before trial, HSC moved for summary judgment of non-infringement on two grounds relevant to this remand. First, HSC argued that it did not infringe under the doctrine of equivalents because in the APS 3200, "the set point is not adjusted as a function of inlet guide vane position" (as required by the IGV limitation in the asserted claims), but instead the APS 3200 used IGV position as "one sub-test" in determining which side of the "double solution" curve the system was operating on. (D.I. 104, HSC Summary Judgment Br. at 28, 32) In response, Honeywell stated that the "double solution" curve had "nothing to do" with the question of infringement and was "irrelevant." (DTX 351, Hon. Opp. Br. at 22-23; DTX 349, Muller Decl. ¶ 34; DTX 350, Clark Declaration ¶10) Based on Honeywell's arguments, the Court denied HSC's motion for summary judgment. *Honeywell*, 2001 U.S. Dist. LEXIS 2155, at *20.

Second, HSC argued that Honeywell could not assert the doctrine of equivalents as a result of prosecution history estoppel. The Court again denied HSC's motion. *Id.* at *19. Honeywell characterizes the Court's summary judgment ruling as containing "findings of fact" that "'Honeywell did not give up an embodiment of the invention with the inlet guide vane limitation' and that 'the elements at issue were not surrendered during prosecution.'" (Hon. Br. 1, 11) That is incorrect. As the Federal Circuit held as a matter of law, Honeywell's amendments created estoppel because Honeywell surrendered broader claims that *lacked* the IGV limitation, and replaced them with narrower dependent claims that *included* the IGV limitation, thus

“effectively adding the inlet guide vane limitation to the claimed invention” *Honeywell*, 370 F.3d at 1144. By relying on the IGV limitation to distinguish the prior art and gain allowance, “there is a presumptive surrender of *all* equivalents to the inlet guide vane limitation” *Id.* This legal determination by the Federal Circuit governs this remand.⁴

III. February 2001 Trial.

At trial, Honeywell alleged that the APS 3200 infringed the asserted claims under the doctrine of equivalents. (Honeywell argued literal infringement of only one independent claim – claim 4 of the ‘194 patent.) Honeywell based its infringement case principally on the testimony of its technical expert, Mr. Muller, who testified that the APS 3200 infringed the IGV limitation (claim elements 8(f) and 19(g) of the ‘893 patent and 4(d) of the ‘194 patent) under the doctrine of equivalents using the function/way/result test. He explained that the function of the IGV limitation is to “identify a guide vane position in order to help in the control of the surge control system,” and that the “result” of that limitation is that IGV position is “used in the operation of the surge control system” (Trial Tr. 669-70, 689-90, DTX 353). He further testified that the APS 3200 meets this test because “as the IGV position changes, it changes the flow.” (*Id.* 709; DTX 349 ¶33). Similarly, during closing arguments Honeywell’s trial counsel argued that the APS 3200 infringed under the doctrine of equivalents because the “flow-related parameter and the surge set point are functions and related to the inlet guide vane position” (Trial Tr. 2554, DTX 353).

The jury found that the APS 3200 APU did not literally infringe, but infringed the asserted claims under the doctrine of equivalents. (DTX 354). After trial, HSC moved for judgment as a matter of law, challenging, among other things, the sufficiency of the evidence to support that finding. The Court denied that motion, finding that Honeywell had presented sufficient evidence

⁴ Further, courts do not make “findings of fact” in summary judgment rulings. *See Porter v. Farmers Supply Service, Inc.*, 617 F. Supp. 1175, 1180 (D. Del. 1985). In any event, issues relating to prosecution history estoppel are questions of law for the Court. *Biagro*, 423 F.3d at 1301-02.

from which the jury could have concluded that “the flow-related parameter used by the APS 3200 ... was a direct function of inlet guide vane position.” *Honeywell*, 166 F. Supp. 2d at 1021.

IV. The Federal Circuit Appeal.

While both parties appealed a variety of issues, Honeywell did not appeal the jury’s finding that the APS 3200 did not literally infringe. (DTX 357); *see also Honeywell*, 370 F.3d at 1138. On appeal, the *en banc* Federal Circuit recognized that “Honeywell concedes that the inlet guide vane limitation is not literally met by the accused” APS 3200. *Id.* at 1136. In addition, the Court ruled that Honeywell had presumptively surrendered all equivalents to the IGV limitation, explaining that “the surrendered subject matter is defined by the cancellation of independent claims that do not include a particular limitation and the rewriting into independent form of dependent claims that do include that limitation. Equivalents are presumptively not available with respect to that added [IGV] limitation.” *Id.* at 1144. The Court remanded the case for a determination of whether Honeywell could overcome the *Festo* presumption of surrender. *Id.*

ARGUMENT

To overcome the presumption that it surrendered all equivalents to the IGV limitation, Honeywell “must show that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.” *Festo*, 535 U.S. at 741. This test guides the analysis under the three *Festo* criteria, and it is a difficult burden to overcome. Of more than a dozen cases the Federal Circuit has reviewed following *Festo*, the Federal Circuit has concluded that the patentee met its burden of overcoming the *Festo* presumption only *once*. *See Insituform Technologies, Inc. v. CAT Contracting, Inc.*, 385 F.3d 1360 (Fed. Cir. 2004).

Here, there is no question that when it amended the asserted claims, Honeywell could have “drafted a claim that would have literally encompassed the alleged equivalent,” and thus that it

intended to disclaim territory between the original claim and the amended claim. *Festo*, 535 U.S. at 740-41. Honeywell's own patent law "expert" conceded that point (Garner Dep. 168-69), and its corporate representative testified that the APS 3200 surge control system did not utilize any "new" technology, such that one skilled in the art would have been prevented from literally claiming such a system in 1982 (Clark Dep. 359). Accordingly, and as set forth below, Honeywell cannot overcome the *Festo* presumption of estoppel.

I. Honeywell's Current Characterization Of The Equivalent On Remand Squarely Contradicts Its Arguments About The Alleged Equivalent At Trial.

Both the "unforeseeability" and "tangential relationship" criteria under *Festo* require an analysis of the "equivalent" on which the infringement finding was based. *Festo*, 535 U.S. at 740-41. Thus, before it can determine whether Honeywell can rebut the *Festo* presumption, the Court must first identify that "equivalent." The equivalent to the IGV limitation here is not the entire APS 3200 APU surge control system. Rather, it consists of the same attributes of the APS 3200 surge control system that Honeywell successfully argued to the jury in the February 2001 trial were equivalent to the IGV limitation.

A. Honeywell's Alleged Equivalent At Trial.

In the February 2001 trial, in order to obtain an infringement verdict, Honeywell argued that the APS 3200 surge control system was equivalent to the IGV limitation because it used a flow-related parameter that was a function of IGV position. Honeywell based its doctrine of equivalents argument principally on the testimony of its technical expert Mr. Muller, who testified that the function, way and result of both the IGV limitation and the APS 3200 surge control system was to "identify a guide vane position in order to help in the control of the surge control system" so that IGV position is "used in the operation of the surge control system." (Trial Tr. 669-70, 689-90, DTX 353). Relying on this testimony, Honeywell's trial counsel, Mr. Krupka,

argued in closing that the APS 3200 surge control system practiced the equivalent of the IGV limitation because its flow-related parameter “Delta P over P or DELPQP is related to inlet guide vane position,” “the surge point of the APS 3200 is based in part on inlet guide vane position, it’s related to inlet guide vane position,” and “the flow-related parameter and the surge set point are functions and related to the inlet guide vane position.” (*Id.* at 2549, 2554) This was the alleged “particularized testimony [by Muller] and linking argument [by Krupka]” that Honeywell presented in order to obtain a verdict of infringement under the doctrine of equivalents.

Based on this evidence and argument, the Court sustained the jury’s infringement verdict, concluding that Honeywell had presented evidence that “the flow-related parameter used by the APS 3200 . . . was a direct function of inlet guide vane position ” *Honeywell*, 166 F. Supp. 2d at 1021 (D. Del. 2001). The Federal Circuit similarly, and correctly, identified as Honeywell’s equivalence theory the APS 3200’s “use of inlet guide vane position . . . to efficiently control surge ” *Id.* at 1137 (quoting Honeywell’s appellate brief). This definition of the equivalent – the use of IGV position and a flow-related parameter that is a function of IGV position in a surge control system – must govern the remand trial. Because Honeywell successfully obtained a jury verdict based on this definition of the equivalent, it is estopped from arguing a different characterization in this subsequent proceeding. *Tracinda Corp. v. DaimlerChrysler AG (In re DaimlerChrysler AG Sec. Litig.)*, 294 F. Supp. 2d 616, 628 (D. Del. 2003) (“Under the doctrine of judicial estoppel, a party may not maintain a position in a legal proceeding that is inconsistent with the position taken by that party in a previous proceeding ”).⁵

⁵ Honeywell also should be held to its original characterization of the equivalent because it received the benefit of that characterization when the Court denied HSC’s motion for JMOL, based upon considering the evidence in the light most favorable to Honeywell. 166 F. Supp. 2d at 1014.

B. Honeywell's Mischaracterization Of The Equivalent On Remand.

On remand, recognizing that it cannot meet its *Festo* burden based on its previous characterization of the equivalent, Honeywell contends that the equivalent is every detail of the entire APS 3200 surge control system (Hon. Br. 15, 22-24). Now Honeywell contends that the equivalent requires static pressure sensors in a diffuser and the exit of a scroll to yield the specific flow-related parameter "DELPQP," the resulting "inverted-V" or "double solution" characteristic, and the use of IGV position to "compensate for" that characteristic. (Hon. Br. 9-10, 24 (referring to the double solution curve as a "response curve that was not directly proportional at all flow levels," which has "multiple levels of flow for a given value of the parameter"))

As discussed above, prior to and during the February 2001 trial, Honeywell argued that many of these same aspects of the APS 3200 were *irrelevant* to infringement. For example, at trial, Mr. Muller briefly mentioned the fact that DELPQP measures static pressure in the diffuser, but then stated that was "as much as I'm going to discuss it, because *it's not germane to what is occurring here*, basically, it's a part of the compressor, and it's a location where Sundstrand measures pressure." (Trial Tr. 626, DTX 353; emphasis added). Similarly, in a sworn statement submitted to the Court prior to the February 2001 trial, Mr. Muller emphasized that the "existence of the 'inverted-V/double solution' characteristic in the APS 3200 . . . *has nothing to do with* whether or not the APS 3200 uses the technology in the '893 and '194 patents." (DTX 349, Muller Decl. ¶34; emphasis added; *see also* DTX 351, Hon. Opp. Br. at 22-23). Honeywell's corporate representative recently confirmed that the double solution characteristic is "irrelevant to whether the APS 3200 is equivalent . . ." (Clark Dep. 187-88). Honeywell's argument on remand that the equivalent *is* the use of IGV position to address the double solution characteristic produced by the flow-related parameter squarely contradicts the argument on which it obtained the infringement verdict and thus should be rejected.

II. The Alleged Equivalent To The IGV Limitations Was Foreseeable.

Honeywell cannot meet its burden of establishing that the alleged equivalent to the IGV limitation was unforeseeable in 1982. An abundance of prior art establishes that the use of IGV position and a flow-related parameter that is a function of IGV position in a surge control system was known and foreseeable by that date. Because Honeywell does not even attempt to demonstrate the contrary – but instead invents a new equivalent to replace what the Federal Circuit and this Court already have found to be the alleged equivalent – it fails to meet its burden of demonstrating unforeseeability. The inquiry should end here. Nevertheless, HSC affirmatively demonstrates below that the alleged equivalent plainly was not unforeseeable.

The unforeseeability analysis looks at the alleged equivalent to the particular limitation at issue. *Honeywell*, 370 F.3d at 1144 (“The scope of the patentee’s concession is determined on a limitation-by-limitation basis.”). It “presents an objective inquiry,” focusing on whether the alleged equivalent uses “later-developed technology (*e.g.*, transistors in relation to vacuum tubes, or Velcro® in relation to fasteners),” which usually is not foreseeable – as opposed to “old technology,” which “would more likely have been foreseeable.” *Festo*, 344 F.3d at 1369. Minor differences between the equivalent and the prior art do not render the equivalent unforeseeable. *See Bio-Rad Laboratories, Inc. v. Applera Corp.*, No. C 02 05946JW, 2005 WL 2008020, at *6 (N.D. Cal. August 12, 2005).

The determination of whether the equivalent is foreseeable is based on the entirety of the prior art, not simply the art contained in the intrinsic record. In *Festo*, the Federal Circuit explained that because the unforeseeability issue depends on factual issues relating to “the understanding of a hypothetical person of ordinary skill in the art,” a district court “may hear expert testimony and consider other extrinsic evidence relating to the relevant factual inquiries.” 344 F.3d at 1369. Accordingly, in the *Festo* remand itself, oddly not cited by Honeywell, the

district court found that the equivalent was foreseeable based on a German prior art patent outside of the intrinsic record *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 75 U.S.P.Q.2d (BNA) 1830 (D. Mass. 2005). In fact, at the August 29, 2005 conference, Honeywell agreed that the unforeseeability test is based on determining “what would that body of art at the time have suggested to that person of skill in the art.” (DTX 360 at 5)

A. A Flow-Related Parameter In A Surge Control System That Is A Function Of IGV Position Was Known And Foreseeable In 1982.

The overwhelming evidence shows that the aspect of the APS 3200 that Honeywell argued was equivalent to the IGV limitation at trial – the use of IGV position and a flow-related parameter that is a function of IGV position in a surge control system – was well-known in 1982.

It has been known since at least the 1970s that IGVs function like “levelor blinds”. when the IGV position is more open, more air can flow through. (Clark Dep. 35-37) Both Honeywell’s corporate representative, Mr. Clark, and its technical expert, Mr. Muller, agree that the effect of IGV position on the flow of air through a compressor was known as of 1982. (Muller Dep. 46; Clark Dep. 250) Mr. Clark testified that he therefore knew in the late 1970s that “in order to efficiently control surge, you would need to take into account inlet guide vane angle and input into your surge control system” (Clark Dep. 365). Because IGV position affects flow through the compressor, it necessarily affects the flow-related parameter used in a surge control system. (Trial Tr. 708-09, DTX 353) Not surprisingly, therefore, Mr. Clark admitted that the use of flow-related parameters influenced by IGV position in a surge control system has been known in the art since at least the 1970’s. (Clark Dep. 285-86; *see also* Muller Dep. 46; Glennon, DTX 327, col. 5, l. 33-40; Warnock 1976 article, DTX 305 at HSC101032; White 1972 article, DTX 309)

In short, the aspect of the APS 3200 surge control system that Honeywell alleged at trial was the equivalent of the IGV limitation was well known in 1982. As a result, it “certainly should

have been foreseeable at the time of the amendment.” *Festo*, 344 F.3d at 1369. Accordingly, Honeywell cannot overcome the *Festo* presumption by showing the equivalent was unforeseeable.

B. The Use Of A $\Delta P/P$ Flow-Related Parameter To Measure A Change In Static Pressure In A Diffuser Was Known And Foreseeable In 1982.

As discussed above, on remand Honeywell has invented a new definition of the equivalent to the IGV limitation, which focuses on detailed aspects of the APS 3200 surge control that Honeywell never presented to the jury as evidence of infringement. Honeywell now contends that the equivalent to the IGV limitation requires a flow-related parameter ($\Delta P/P$) that is based on measurement of static pressure⁶ in the diffuser and encounters a double-solution curve under certain flow conditions. (Hon. Br. 24) If the Court were to allow Honeywell to assert its newly defined equivalent, it was nonetheless just as foreseeable as the aspect of the APS 3200 that Honeywell argued was equivalent at trial. Both the $\Delta P/P$ flow-related parameter in the APS 3200 and the resultant double-solution curve were well-known and therefore foreseeable in 1982.

1. $\Delta P/P$, Labeled As DELPQP In The APS 3200 Software, Was Well-Known As Of 1982.

Honeywell’s broad assertion that the “flow-related parameter used in the APS 3200, which Sundstrand termed DELPQP, was novel and had never been used before” is simply not true. (Hon. Br. 23) DELPQP is simply a name in the software logic for what is more commonly known as $\Delta P/P$, or DELTA-P-OVER-P. Well-before Honeywell invented its new definition of the equivalent on remand, it explained that “Sundstrand often refers to the flow-related parameter employed by the APS 3200 as ‘delta P over P,’ or “ $\Delta P/P$.”⁷ (Hon. Opp. Br., DTX 351 at 8)

⁶ Static pressure is the pressure of air, not taking into account the effect of the motion of the air.

⁷ Indeed, HSC’s memos and specifications relating to the development of the APS 3200 are replete with references to this parameter as $\Delta P/P$. (E.g., JTX 16; JTX 3 at 14; JTX 15 at Fig. 10; DTX 158 at 15; DTX 124; DTX 127; JTX 7; DTX 136; DTX 147)

$\Delta P/P$ is a measurement of “a change” or “difference” in pressure “over some pressure” (Muller Dep 66, 68) As Honeywell’s Mr. Muller stated, DELPQP is simply “one form” of $\Delta P/P$, and he agreed that it was well-known in the art in 1982 to use $\Delta P/P$ as a flow-related parameter in compressors (Muller Dep 68-70; *see also* Clark Decl. ¶11, DTX 350 (APS 3200 parameter is “commonly expressed as $\Delta P/P$ ”))

The APS 3200’s $\Delta P/P$ flow-related parameter uses measurements of static pressure in the diffuser, but that was nothing new either. Many prior art references show this. Of particular significance is a prior art APU load compressor Hamilton Standard developed for the Lockheed L1011 airplane, which first entered service in 1972 with Eastern Airlines (DTX 376; DTX 377; DTX 378) The flow-related parameter in the L1011’s surge control system was based on measurements of static pressure in the diffuser, as even Honeywell’s Mr. Muller admitted (DTX 105 at SUND000499; Muller Dep 264-68) As Honeywell’s corporate representative explained, it was “general knowledge” dating back at least to the 1970s that “if you’re going to [*sic* – measure] pressure in the diffuser, you’re going to want to measure static pressure.” (Clark Dep 97)

Several other references, including one of the patents cited in the prosecution of the patents-in-suit, show the measurement of static pressure in the diffuser (DTX 317, Best patent, col. 2, l. 45-50 (“two static [pressure] taps located at spaced points in the diffuser section of the compressor could be used” to measure flow); Welliver & Acrurio 1967, DTX 308 at 222-40 (“static pressure variation in diffuser”); Runstadler & Dean 1970, DTX 289 (“static pressure holes ... located opposite the centerline of the diffuser passage”); Dean, Wright and Runstadler 1970, DTX 229 at Fig 26 (multiple static pressure taps in diffuser); Copp 1971, DTX 227 at 4 (60 static pressure measurements in diffuser). As a result of this overwhelming evidence, Honeywell’s expert Mr. Muller admitted that he has seen published reports prior to 1982 “indicating the measurement of static pressure within diffusers” (Muller Dep. 130-31)

Moreover, in December 1983, a little over a year after the 1982 amendment and a few months after the 1983 amendment, Honeywell wrote a memo about a surge control system it had designed that used $\Delta P/P$ based on measurements of static pressures in the diffuser (Clark Dep. 340-41; DTX 202). Significantly, in binding testimony to Honeywell, its corporate representative testified that this system did not “require any new technology”.

Q. Based on that understanding, was there any difference in the technology that existed in December of 1983 that would have prevented the surge control system referenced in the first paragraph of Exhibit 22 to have been implemented two years before that?

A. It doesn't require any – Well – it doesn't – *It doesn't require any new technology.* (Clark Dep. 359; emphasis added) As the *Festo* court explained, “old technology” is “more likely to have been foreseeable.” *Festo*, 344 F.3d at 1369. For this reason alone, Honeywell's reliance on *BEI Tech., Inc. v. Matsushita Elec. Indus. Co.*, 268 F. Supp. 2d 782 (E.D. Mich. 2003), a district court opinion issued prior to the *Festo* en banc decision, is misplaced. (Hon. Br. 25-26) In *BEI*, the court found that direct bonding of quartz wafers was not foreseeable because it was “after-arising technology.” *Id.* at 801-02. Here, by contrast, the equivalent at issue was based on technology that existed prior to 1982.⁸

In an attempt to avoid this overwhelming evidence, Honeywell's brief repeatedly refers to a statement by Mr. Shinsky in his 2000 expert report that DELPQP was a “unique” flow-related parameter (Hon. Br. 2, 9, 23-25). This argument does not support Honeywell's “unforeseeability” argument for at least three reasons. First, as discussed above, Honeywell did not base its “equivalence” argument at trial on HSC's use of DELPQP as opposed to some other $\Delta P/P$ flow-

⁸ Honeywell also misrepresents the holding of *BEI Tech.*, stating that the patent owner “established” unforeseeability based upon the “fact” that “none of the prior art references raised during prosecution had suggested or disclosed the equivalent,” that “none of the inventors were personally aware of the equivalent; and that “the infringer had not developed the equivalent until several years after prosecution of the patent.” (Hon. Br. 25). However, the *BEI Tech.* court did not rely upon any of these so-called “facts” in its decision. Rather, after listing them as arguments made by the patentee, the court based its ruling of unforeseeability on an article describing “modern wafer bonding.” 268 F. Supp. 2d at 802.

related parameter (DTX 353, Trial Tr. 626 (Mr. Muller stating that DELPQP is “not germane to what is occurring here, basically, it’s a part of the compressor, and it’s a location where Sundstrand measures pressure.”)) Thus, whether DELPQP was a “unique” flow-related parameter is irrelevant to whether the equivalent to the IGV limitation was foreseeable.

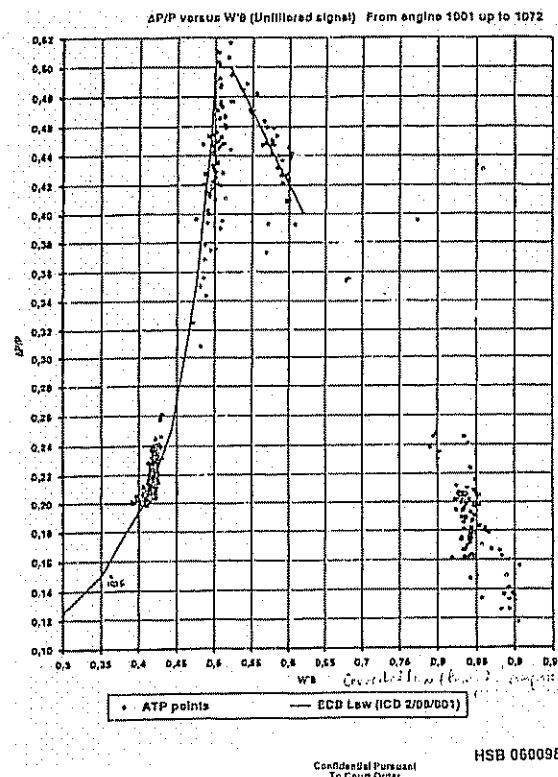
Second, as is clear from the full quotations, Mr. Shinskey’s statements were based solely on “the author’s experience” (Hon. Br. 23). However, the unforeseeability test is based not on the knowledge of any single individual, but on the knowledge of a hypothetical person of ordinary skill in the art, who is “presumed to be aware of all the pertinent prior art.” *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986). Mr. Shinskey had not conducted a search of prior art for a flow parameter like the APS 3200 used, and he was not aware, for example, of the L1011 APU’s flow parameter.

Finally, the jury rejected Mr. Shinskey’s views. Mr. Shinskey’s testimony that DELPQP was a “unique” measurement was in support of his opinion that the APS 3200’s use of IGV position was not equivalent to the IGV limitation in the patents (See DTX 353, Tr. 1356-57, 1367-69, 1383, 1400-01). Honeywell argued in its post-trial brief that HSC’s defense “lacked all credibility” and was based upon a “series of outright misstatements of fact by its expert witness, Francis Shinskey” (DTX 355 at 10). Yet Honeywell now relies on this same testimony, which the jury necessarily (and according to Honeywell, properly) rejected. If Mr. Shinskey’s testimony in this regard had been accepted by the jury, then the jury would not have found infringement.

2. The Inverted-V/Double-Solution Curve Was Well-Known As Of 1982.

Honeywell next argues that the “unusual” use of the $\Delta P/P$ parameter in the APS 3200 led to the possibility of obtaining “multiple levels of flow for a given value of the parameter,” also known as the “double-solution” curve (Hon. Br. 23-24). The double solution curve, however, was also known in the art well before 1982.

To the right is an example of such a curve based on testing in the APS 3200. It shows that as compressor air flow increases, the $\Delta P/P$ parameter “initially rises” and “at an inflection point it peaks and thereafter actually decreases as flow further increases” (Hon. Br. 10). This “double-solution” characteristic is the result of supersonic or “choked flow” (Muller Dep. 170). While a diffuser will increase pressure at subsonic flow (causing the initial rise in the curve), when the flow is supersonic a shockwave will occur in the diffuser and the pressure will actually decrease (causing the fall in



the curve). (*See id.* 173-74). This is called the “double solution” problem because (as seen in the graph) for any $\Delta P/P$ (y axis) there are two corresponding flow values (x axis). Honeywell’s corporate representative admitted that he learned the “fluid dynamics principles that . . . are responsible for the double solution problem” in college in the early 1970s. (Clark Dep. 117-18).

Contrary to Honeywell’s assertions, the double-solution problem is not unique to the APS 3200. Rather, both Mr. Clark and Mr. Muller admitted that this issue arises any time there is supersonic flow and measurement of static pressure in a diffuser – circumstances that existed in several prior art engines before 1982. Mr. Muller explained that double solution characteristic “is strictly a result of the location of the static pressure tap. Any compressor taking a static pressure measurement of supersonic air flow in the diffuser would have a similar characteristic.” (Aug. 7, 2000 Decl. ¶34, DTX 349). Similarly, Mr. Clark agreed that “any time that you take a static pressure measurement in the context of a flow parameter within the diffuser that experiences supersonic flow, you’re going to expect to see that double solution curve.” (Clark Dep. 127, 135).

There are several examples of APUs using measurements of static pressure in the diffuser that lead to a double-solution curve. Foremost is the L1011 APU, discussed above. (DTX 105 at SUND000491-93, 499, 503, 505, 601-02) A 1975 memo investigating a potential change in the L1011 surge control system stated that the “undesirable tendency of both the signal curve and the ΔP curve to peak and then drop off thus potentially giving an ambiguous signal was still a problem” (DTX 108 at 5). This tendency is the double-solution curve.⁹ To remedy the situation, the L1011 APU used a “shock switch” that detects when extremely high flow levels that would cause the double solution have been reached and, at that point, “overrides the surge control driving the surge valve toward full closed” when supersonic flow (and thus a shock) is sensed. (DTX 105 at SUND000505) This is the same approach the APS 3200 used: to “block [the] control signals used to operate the surge bleed valve during extreme high flow conditions.” 370 F.3d at 1136.

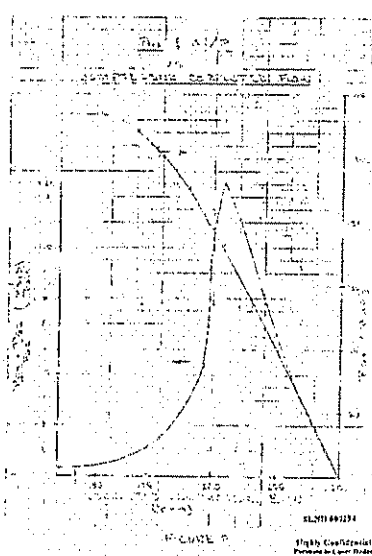
Honeywell criticizes HSC for “never once mention[ing] the L1011 during the February 2001 trial.” (Hon. Br. 24-25) However, the L1011 was not important in the 2001 trial. First, for purposes of *Festo*’s unforeseeability analysis, which did not exist at the time of the first trial, the prior art need only disclose the particular claim limitation at issue, not every limitation, as was required to prove invalidity in the first trial. Thus, while the L1011 APU may not have invalidated the patents, it is centrally relevant to the foreseeability of the IGV limitation under Honeywell’s newly-developed theory of the equivalent in this remand proceeding, because it measured the change in static pressure in the diffuser with the resultant double-solution curve.¹⁰

⁹ Other prior art documents describing or showing a double-solution problem include Deych & Zaryankin’s 1970 paper (DTX 231 at Fig. 4.5); Dean, Wright and Runstadler’s 1970 paper (DTX 229 at Figs. 178, 179); and Baghdadi’s 1977 paper (DTX 217 at Fig. 12).

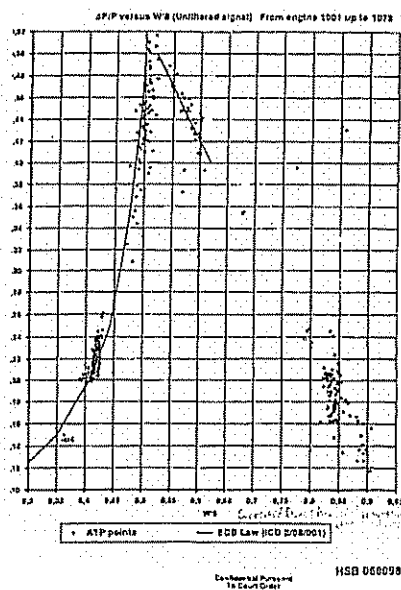
¹⁰ Honeywell has argued that the surge control method for the L1011 was “abandoned” because it was “unreliable.” This argument is factually and legally wrong. Factually, the evidence at trial will show that Hamilton Standard did not “abandon” the surge control system contained in the APU’s that it sold in the 1970’s. Legally, Honeywell’s argument is irrelevant. Even if a system were “abandoned” after sold publicly for several years (and here it was not), it would still show the foreseeability of that approach. *See*

The double-solution problem found in the L1011 is not unique to APUs made by HSC or its predecessors. Honeywell engineer Mr. Clark explained in a sworn declaration in 2000 that “[s]everal of Honeywell’s APU’s – including the 331-350 – have that same ‘inverted-V/double solution’” (Clark Decl. ¶10, DTX 350). The surge control system in Honeywell’s 331-350 APU (developed for the A330 airplane in the late 1980’s) used a $\Delta P/P$ parameter by taking measurements of static pressure in the diffuser (Clark Dep. 135; DTX 210). Thus, the “331-350 APU experienced the double solution problem.” (Clark Dep. 383-84; see DTX 209; DTX 210; DTX 214; Muller Dep. 254, 256-59).

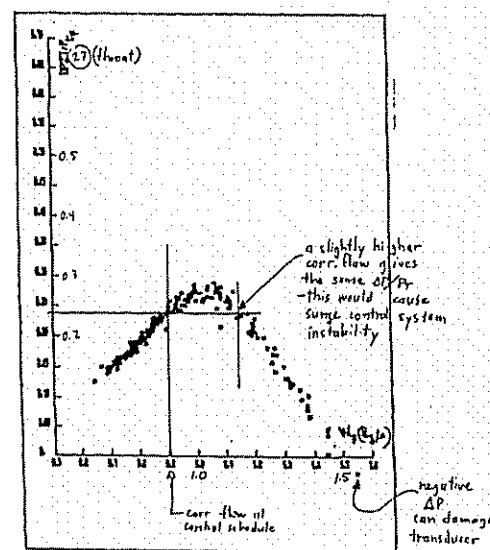
Below is a side-by-side comparison of the double solution curves in the L1011, APS 3200, and the 331-350 (DTX 104; DTX 161; DTX 210).



L1011



APS 3200



331-350

Bio-Rad Laboratories, Inc. v. Applera Corp., No. C 02 05946JW, 2005 WL 2008020, at *6 (N.D. Cal. 2005) (recitation of “well-known” problems with prior art chemicals “does not necessarily suggest that it would have been unforeseeable at the time of the amendment” that the compound “could represent an equivalent to the subject matter claimed initially”)

All of these curves share the same tendency, as Honeywell put it, to “initially rise[] as flow through the compressor increases, at an inflection point it peaks and thereafter actually decreases as flow further increases” (Hon Br. 10). This characteristic is not unique to the APS 3200.

Just like the APS 3200, Honeywell’s 331-350 addresses the double solution problem by using a “flow sensor switching schedule” that looks at IGV position that “allows the logic to distinguish which side of the flow sensor curve it is operating on” and “keep[] the surge valve closed” at high flows. (Goff 2/1/90 memo, DTX 214 at 4; Clark Dep. 131, 134). In this way, the “331-350 APU used inlet guide vane position as an input in determining when you’re on the right-hand side of the double solution curve.” (Clark Dep. 383-84).

In a devastating admission for Honeywell, its corporate representative admitted that had the double-solution problem encountered with the 331-350 come up in the 1970s, Honeywell would have addressed it using IGV position:

Q. In the late 1970s, had the double solution problem come up, it could have been solved at Honeywell?

MS. STEVENSON: Objection; calls for speculation.

THE WITNESS: If it had come up – if it had come up it could have been solved.

Q. And it could have been solved by using inlet guide vane position, correct, in the late 1970s?

A. The same way we did it on the 350.

(Clark Dep. 162). Thus, Honeywell’s own corporate representative affirmatively testified that using IGV position to address the double-solution issue was not unforeseeable in the 1970s.

In sum, the evidence overwhelmingly demonstrates that even the specific features that make up the “equivalent” on which Honeywell now relies – $\Delta P/P$ based on static pressure measurements in the diffuser, the double-solution characteristic, and using IGV position to address it – were not new, and certainly were not unforeseeable, at the time of Honeywell’s amendments.

C. The APS 3200 Development Supports The Foreseeability Of The Equivalent.

Honeywell's arguments concerning the APS 3200 development are without merit. First, Honeywell makes the nonsensical argument that since the APS 3200 was developed after 1982, it is necessarily "later-developed technology in the literal sense" (Hon. Br. 22-23). Honeywell confuses later-developed *technology* with a later-developed *product*. Nearly every product accused of infringement is developed after the date of the invention claimed in the patent; otherwise, it would serve as prior art that would render the patent invalid. Thus, the Federal Circuit in *Festo* referred to "later-developed technology" such as "transistors in relation to vacuum tubes, or Velcro® in relation to fasteners" – not a later developed product. *Festo*, 344 F.3d at 1369. As discussed above, the technology in the APS 3200 that Honeywell identified as the equivalent at trial as well as that newly identified in the remand was developed prior to 1982.

Second, Honeywell argues that the equivalent was not foreseeable because it "took Sundstrand nearly four years of failed experimental and development efforts to address and resolve the problems created by this behavior of the DELPQP variable" that it first discovered in 1991. (Hon. Br. 9-10). Honeywell's argument is factually incorrect. HSC determined that it should use IGV position to address the double-solution behavior *within two months* of seeing the double solution curves. In an October 1, 1991 memo, one of HSC's engineers, Pete Suttie asked for views on the "double solution" curves contained in the test data. (JTX 4). The following month, on November 28, 1991, another engineer sent a memo that proposed addressing this problem using a test that was based upon "IGV setting angle," or IGV position. (JTX 6). The only other test the APS 3200 ever used, called the total pressure ratio test, also used IGV position as an input. Thus, HSC decided to use IGV position to solve the double-solution issue within two months of the issue being identified, and it never strayed from using IGV position in that way. (JTX15; DTX 133; DTX 142; DTX 149; JTX 13; DTX 153; JTX 39; JTX 20; JTX 15; JTX 19).

III. Honeywell Cannot Show That The Reason It Amended Its Claims Was Merely Tangential To The Asserted Equivalent.

To overcome the *Festo* presumption by relying on the “tangential relation” criterion, Honeywell bears the burden of showing that the reason for the narrowing amendment bore no more than a tangential, or peripheral, relation to the asserted equivalent. *Festo*, 344 F.3d 1359 at 1369. This test is based upon the prosecution history “without the introduction of additional evidence, except, when necessary, testimony from those skilled in the art as to the interpretation of that record.” *Id.* at 1369-70. As Honeywell’s proffered patent law expert has written, “[u]nder *Festo*, any doubts about the reason for the amendment are resolved against the applicant during a later litigation.” Melvin Garner, *Prosecution of Patent Applications*, FUNDAMENTALS OF PATENT PROSECUTION, at 37 (2005).

Honeywell cannot overcome the presumption under the “tangential relation” criterion for at least three reasons. First, the prosecution history establishes that the reason Honeywell amended the asserted claims was directly related to the alleged equivalent. Second, Honeywell bases its tangential relation argument on a proposed legal standard that the Federal Circuit has rejected: namely, that a patentee can show tangentiality merely by establishing that the asserted equivalent was not in the prior art cited by or to the patent examiner. Finally, the intrinsic record does not affirmatively reveal any reason for Honeywell’s amendments that is tangential to the equivalent, and Honeywell’s failure to set forth any such reason during prosecution precludes it from attempting to overcome the *Festo* presumption as a matter of law.

A. Honeywell’s Rationale For Amending The Claims To Include The IGV Limitation Was Directly Related To The Alleged Equivalent.

Honeywell voluntarily surrendered the entire scope of equivalents to the IGV limitation in order to obtain allowance of the asserted claims. *Honeywell*, 370 F.3d at 1141. The examiner rejected Honeywell’s original independent claims – which lacked the IGV limitation – as obvious

in view of the prior art. *Id.* Honeywell then relied on the addition of the IGV limitation to distinguish the claims from the prior art “in order to secure their allowance.” *Id.* As the Federal Circuit explained, “Claims 4, 8 and 19 were rewritten into independent form, and the original independent claims were cancelled, effectively adding the inlet guide vane limitation to the claimed invention.” *Id.* at 1144. The IGV limitation was the only distinction Honeywell made from the prior art.

Accordingly, the premise of Honeywell’s argument – that IGV position “was never mentioned at any point in the prosecution history” (Hon. Br. 17) – is simply not true. Honeywell did not, and cannot, give any reason for its IGV amendments other than they were made to distinguish the prior art. Because the use of IGV position was a “claimed improvement over the prior art,” it was “at issue during prosecution.” *Rhodia Chimie*, 402 F.3d at 1383.

In the February 2001 trial, Honeywell used this same feature – HSC’s incorporation of IGV position in its surge control system – to secure a verdict of infringement under the doctrine of equivalents. As a result, the reason for Honeywell’s narrowing amendments (adding the IGV limitation to overcome prior art) is directly related – and not “merely tangential” – to the asserted equivalent (the APS 3200’s use of IGV position). Both involve the same aspect of the invention – the use of IGV position in the surge control system. *See Festo*, 344 F.3d at 1373 (Festo’s addition of the “sealing ring” limitation “at least in part” to distinguish prior art that lacked that limitation rendered the amendment more than tangential to the “sealing ring” equivalent); *Biagro*, 423 F.3d at 1306 (where the narrowing amendment and the alleged equivalent involve the “same aspect” of the invention, the rationale underlying the amendment is not merely tangential to the equivalent); *eSpeed, Inc. v. BrokerTec USA, L.L.C.*, 342 F. Supp. 2d 244, 252 (D. Del. 2004) (more than a tangential relationship where “applicant’s rationale in amending the [] application appears to be directly related to overcoming the examiner’s [prior art] rejection”); *Windbrella Products Corp. v.*

Taylor Made Golf Co., No. 05 Civ. 5626 (SAS), 2006 U.S. Dist. LEXIS 4410, at *35 (S.D.N.Y. Feb. 3, 2006) (“Where the portion of the amendment in question was necessary to distinguish prior art, and where there is no explicit alternative explanation for the amendment in the public record, the amendment has not been considered tangential.”)

B. Honeywell Bases Its Tangential Relationship Argument On An Erroneous Legal Standard.

Honeywell asserts that the rationale underlying its amendments was tangential to the equivalent merely because none of the prior art references that the examiner cited related to IGV position. (Hon. Br. 16, 19-20) However, the Federal Circuit has specifically rejected the tangentiality test Honeywell proposes. In *Rhodia Chimie*, the Federal Circuit explained that while an amendment made to avoid prior art that contains the equivalent in question is clearly *not* tangential, the absence of the equivalent in the prior art does not make the reason for the amendment merely tangential:

Rhodia misunderstands the scope of the inquiry into the relationship between the narrowing amendment and the accused equivalent. As we have stated, ‘an amendment made to avoid prior art that contains the equivalent in question is not tangential,’ *Festo*, 344 F.3d at 1369. ***It does not follow, however, that equivalents not within the prior art must be tangential to the amendment***

402 F.3d at 1383 (emphasis added); *see also Norian Corp. v. Stryker Corp.*, 423 F.3d 1356, 1361 (Fed. Cir. 2005) (“there is no principle of patent law that the scope of a surrender of subject matter during prosecution is limited to what is absolutely necessary to avoid a prior art reference that was the basis for an examiner’s rejection”), *Freeman v. Playtex Prods., Inc.*, 388 F. Supp. 2d 1251, 1260 (D. Kan. 2005) (“Simply because the prior art . . . does not contain the precise alleged equivalent in question . . . does not equate to a finding that the [equivalent] at issue here is tangential to the purpose of the amendment”), *Aventis Pharms., Inc. v. Barr Labs, Inc.*, 335 F. Supp. 2d 558, 571 (D.N.J. 2004) (“[N]ot finding the equivalent in a prior art reference is not

sufficient to rebut the presumption of surrender.”). The most recent case to address this issue again rejected Honeywell’s exact argument. *Windbrella*, 2006 U.S. Dist. LEXIS 4410, at *34 (“In *Festo III* itself and in more recent cases, the court has refused to find an amendment tangential even though the alleged equivalent did not exist in the prior art that had forced the amendment.”)

In fact, in *Festo* itself, the Federal Circuit held that there was more than a tangential relationship between the equivalent and the reason for the amendment despite the fact that (with respect to the Stoll patent) the “sealing ring” amendment at issue “was made to distinguish two prior art patents *that did not disclose sealing rings*.” 344 F.3d at 1373 (emphasis added). Because the amendments “were made to distinguish prior art patents based, at least in part, on the ‘sealing ring’ aspect of the invention,” the amendments were held to be not “merely tangential” to the alleged equivalent, even though the prior art itself did not disclose sealing rings. *Id.* Like here where Honeywell added the IGV limitation to distinguish prior art that lacked that limitation, a patentee cannot establish tangentiality simply by asserting that the equivalent was not in the prior art cited by the examiner.

The rule proposed by Honeywell and rejected by the Federal Circuit – that the only time an equivalent is more than tangential to the amendment is where it was disclosed in the prior art – would result in the tangential relation test becoming indistinguishable from the old pre-*Festo* flexible bar test. The old test allowed a patentee to escape estoppel with respect to everything other than the uncommon circumstance where the particular prior art it sought to distinguish with its narrowing amendment matched up with the alleged equivalent. In creating the presumptive complete bar, with particular criteria that must be met to overcome the presumption, the Supreme Court plainly did not intend to re-institute the flexible bar by another name.¹¹

¹¹ In addition, under Honeywell’s theory, every time a patentee rewrites an allowable dependent claim in independent form, the amendment automatically would be tangential (and estoppel would *not* apply).

C. Honeywell's Lack Of An Affirmative Explanation For Its Amendments During Prosecution Defeats Its Tangential Relation Argument.

Although Honeywell clearly added the IGV limitation to overcome the prior art, during prosecution Honeywell did not affirmatively articulate any specific reason for this limitation. Honeywell now attempts to rely on its failure during prosecution to articulate *any reason* for the amendment to show that *the reason* for the amendment was tangential to the alleged equivalent. Honeywell's unsupported argument is contrary to established case law

Honeywell bears the burden of establishing tangentiality by pointing to affirmative statements in the prosecution history that demonstrate that the reason for the amendments was unrelated to the equivalent. Unexplained amendments cannot serve as a basis for overcoming the *Festo* presumption. *Biagro*, 423 F.3d at 1306; *Festo*, 344 F.3d at 1372-73. In *Festo*, the patentee argued that the amendment had no more than a tangential relation to the equivalent because adding the "magnetizable" limitation at issue "was unnecessary to respond to (and thus only tangential to)" the examiner's rejection. 344 F.3d at 1371-72. The Federal Circuit rejected *Festo*'s argument and held that where "the prosecution history reveals no reason for the ... amendment, and [where the patentee] still identifies no such reason, [the patentee] has not shown that the rationale for the ... amendment was only tangential to the accused equivalent." *Id.* at 1372.

Similarly, in *Biagro* the patentee amended its claims to add a limitation specifying a concentration of phosphorous-containing acid of "about 30 to about 40 weight percent" in the claimed fertilizer. 423 F.3d at 1299. Like the patentee argued in *Festo* and like Honeywell argues here, *Biagro* argued that it should not be estopped from asserting the doctrine of equivalents as to the upper limit of the concentration range because its addition of the upper limit to the range was

because the limitation of the dependent claim by definition was not disclosed in the prior art (or the claim would not have been allowed in the first place). Such a rule would conflict with the Federal Circuit's decision in this very case, which held that the presumption of estoppel *does* apply when an allowable dependent claim is rewritten in independent form in the manner done here. *Honeywell*, 370 F.3d at 1144.

unnecessary to overcome the prior art. *Id.* at 1306. The Federal Circuit rejected Biagro's argument: "since the prosecution history shows no reason for [amending the claim to add] an upper limit to the concentration range, Biagro cannot claim that the rationale for the amendment is merely tangential." 423 F.3d at 1306.

As a district court in New York explained earlier this month, this rule "makes good sense because the purpose of prosecution history estoppel is to provide the public with notice of what the patentee has surrendered." *Windbrella*, 2006 U.S. Dist. LEXIS 4410, at *18. The court explained that the public notice function "would not be well-served by the acceptance of unsupported post-hoc interpretations used to reduce the impact of narrowing amendments and the doctrine of prosecution history estoppel." *Id.* at *36. To allow patentees to use these post-hoc interpretations would incentivize patent applicants to say nothing in the public record during prosecution, knowing they had free rein to explain their actions later in litigation.

Here, the prosecution history of the patents-in-suit is silent as to the reason Honeywell amended its claims. Honeywell provided no explanation whatsoever for its amendments or for including the IGV limitation. Honeywell simply accepted the examiner's invitation to rewrite its original claims to "effectively add[] the inlet guide vane limitation to the claimed invention." *Honeywell*, 370 F.3d at 1144. Honeywell did not and cannot give any reason for its IGV amendments other than they were necessary to overcome the prior art.

Honeywell now relies on its silence during prosecution to attempt to show a tangential relationship between the amendment and the equivalent, stating in its brief:

- "in submitting the amendments, Honeywell made absolutely no reference to the Sundstrand equivalent" (Hon. Br. 16-17)
- "the Examiner never suggested that the amended claims were allowable because they claimed a particular use of inlet guide vane position" (*Id.* at 17)

- the “inlet guide vane position was never mentioned at any point in the prosecution history ... by Honeywell” (*Id.*)
- the “use of inlet guide vane position ... was simply never mentioned” (*Id.* at 19)
- “the Examiner never indicated that he attached any particular significance to the use of inlet guide vane position” (*Id.* at 21)

Based on this silence in the prosecution record, Honeywell attempts to reverse the burden of proof and argues that “there is nothing to suggest that use of inlet guide vane position was a necessary feature of the patented system” and that something other than the IGV limitation may have made the claims allowable. (Hon. Br. 17, 19, 21-22) But Honeywell bears the burden of showing that the prosecution history affirmatively indicates that the reason for its amendments was merely tangential to the equivalent, not simply that the record is silent on the issue. *Biagro*, 423 F.3d at 1306; *Festo*, 344 F.3d at 1372-73. Because Honeywell provided no explanation of the reason it amended its claims to add the IGV limitation, Honeywell’s own speculative “inference” to advance its litigation position is not sufficient. *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 287 F. Supp. 2d 126, 153 n.38 (D. Mass. 2003).

This Court has held that the patentee cannot overcome the *Festo* presumption under the tangential relation criterion on facts similar to those here. In *eSpeed*, the patentee added certain limitations in response to an examiner’s rejection, resulting in allowance. 342 F. Supp. 2d at 251-52. Like here, “no reason [was] given for the cancelling of [the original application claim-in-issue] and subsequent addition of the now issued claim ...” *Id.* This Court concluded that the “applicant’s rationale in amending the [] application appears to be directly related to overcoming the examiner’s first rejection. Thus, the patentee voluntarily waived all equivalents between the original claims and the issued claim. Therefore, the patentee cannot show a mere tangential relationship between the narrowing amendment and the equivalent in question ...” *Id.* at 252. Like the applicant in *eSpeed*, Honeywell did not provide any explanation for adding the IGV

limitation to the rejected independent claims. Honeywell thus voluntarily waived all equivalents between the original claims and the issued claims. *Id.* at 251-52; *Biagro*, 423 F.3d at 1306; *Festo*, 344 F.3d at 1372.

If Honeywell had intended to surrender anything less than the entire range of equivalents to its IGV limitation, it could have either affirmatively said so in the prosecution record (for example, by explaining the purpose or scope of its amendment), or it could have drafted a claim of intermediate scope that covered subject matter somewhere in between the original rejected independent claim and the narrower claim that was allowed. In fact, Honeywell's own patent law expert concedes that Honeywell could have drafted a claim of intermediate scope that literally covered the APS 3200 surge control system.¹² (Garner Dep. 102-03; 168-69). And that is the ultimate test under *Festo*: whether Honeywell can show that "at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent." *Festo*, 535 U.S. at 741.

The prosecution history shows that by accepting the IGV limitation, and not pursuing either the original broad claims or claims of intermediate scope instead, Honeywell surrendered the scope of equivalents between the broad independent claims that were rejected and the narrow amended claims that were allowed and gave notice that the public was free to pursue alternative techniques that did not fall within the scope of the IGV limitation. Similarly, in *Windbrella*, the court explained that after the claim was rejected, the patentee "had the option . . . to contest the patent examiner's advice and amend the claim differently, to pursue a broader patent specification." 2006 U.S. Dist. LEXIS 4410, at *36; *cf. Festo*, 344 F.3d at 1372 (patentee "could

¹² Whether the Patent Office would have allowed the broader alternative claim is irrelevant. See *Glaxo Wellcome v. Impax Lab., Inc.*, 356 F.3d 1348, 1351 (Fed. Cir. 2004) (recognizing that patentee could not have added an amended claim that would have covered the alleged equivalent without drawing a new matter objection, but holding that this was not a basis for overcoming the presumption of estoppel).

have described the accused equivalent at various levels of specificity”). However, because the patentee in *Windbrella* “accepted a narrower description of the latch,” it could not show that the “rationale for this amendment [was] tangential to a dispute about the scope of the latch limitation.” *Id.*; see *Biagro*, 423 F.3d at 1306; *Festo*, 535 U.S. at 734 (accepting a narrower claim is a “concession that the invention as patented does not reach as far as the original claim”). Here too, because Honeywell accepted the narrower IGV limitation, it cannot show that the rationale for its amendments was tangential to the dispute at trial about the scope of the IGV limitation.

Honeywell’s approach to the doctrine of equivalents – relying on silence during prosecution to preserve its equivalents argument – gives no weight to the “public notice” function of the prosecution history and thus is contrary to *Festo*, *Biagro* and various district court cases.

D. The Federal Circuit’s Decision In *Insituform* Does Not Support Honeywell.

Honeywell relies on *Insituform*, which is the *only* Federal Circuit decision since its 2003 *Festo* ruling to find that the patentee had overcome the *Festo* presumption. In contrast to Honeywell’s prosecution of the patents-in-suit, however, the patentee in *Insituform* affirmatively stated and “made clear” during the prosecution that the reason for its amendment had nothing to do with the claim limitation on which the equivalence finding was based.

In *Insituform*, the asserted claim was directed to a process for impregnating a flexible tube liner for underground pipes with resin prior to insertion of the liner into a damaged pipe. The examiner initially rejected the claim over a prior art patent that disclosed “the use of a continuous vacuum . . . at the far end of the tube opposite the resin source.” *Id.* at 1369. In response, the patentee amended the application claim, incorporating three previously dependent claims into that single rejected independent claim: one dependent claim related to the location of the vacuum source, another related to the proximity of the vacuum tube to the resin source, and the third related to the use of a “cup” for inserting the vacuum into the pipe. *Id.* at 1364, 1369.

The Federal Circuit emphasized that in the prosecution history: “Insituform had *explained the reason* for the amendment”, (2) “Insituform had *stated to the examiner*” that its claims were distinct from the prior art because the proximity of the vacuum tube to the resin source avoided the need for an exceedingly long suction compressor, (3) the “*stated reason* ... for Insituform’s amendment to overcome the [prior art] was to avoid the need to use a large compressor when the vacuum is created a significant distance from the resin source”, and (4) “Insituform *made it clear*” during prosecution “that the difference between its process and [the prior art] was that its process did not have the disadvantage of the Everson process of a large compressor at the end of the liner.” *Id.* at 1369-70 (citations omitted, emphasis added). In other words, the prosecution history showed that the limitation on which Insituform relied to distinguish the prior art related to the proximity of the vacuum to the resin source – not the other elements it added. *Id.* at 1369; *Biagro*, 423 F.3d at 1306 (explaining the Court’s holding in *Insituform*)). Accordingly, the Federal Circuit concluded that “the only express limitation put on the invention by Insituform was the use of a vacuum source close to the resin.” 385 F.3d at 1370.

The question of equivalence in *Insituform*, however, did not relate to the aspect of the invention that Insituform had explained was the reason for the amendment – the proximity of the vacuum source to the resin. Rather, the question of equivalence related to the number of “cups” used by the allegedly infringing system, which used a multiple cup process rather than the single cup set forth in the asserted claim. *Id.* at 1370. Based on the clear articulation during prosecution that the rationale underlying its narrowing amendment (adding a limitation relating to proximity of the vacuum source to distinguish prior art) had nothing to do with the asserted equivalent (relating to the number of vacuum “cups”), the Federal Circuit concluded that Insituform had successfully rebutted the *Festo* presumption. *Id.*

Unlike the clear prosecution record in *Insituform*, the prosecution record in this case contains no such clear statements by Honeywell pointing to any reason for adding the IGV limitation other than to overcome the prior art.¹³ Rather, the prosecution history shows (and the Federal Circuit concluded) that the “express limitation put on the invention” by Honeywell – the IGV limitation – was the limitation on which Honeywell relied both to overcome the prior art and to prove infringement under the doctrine of equivalents. (e.g., JTX 33 at HSB401573) Thus, unlike the reason for amendment in *Insituform*, the reason for Honeywell’s amendment (adding a limitation regarding use of IGV position to overcome prior art) was directly related to the asserted equivalent (the APS 3200’s use of IGV position). Both related to the same aspect of the invention.

In *Biagro*, the Federal Circuit distinguished the facts of *Insituform* on the same grounds. The court noted that in *Insituform*, “the reason for the amendment and the alleged equivalent involved different aspects of the invention – the location of the vacuum source relative to the resin versus the number of vacuum cups.” 423 F.3d at 1306. In contrast, in *Biagro*, “the reason for the amendment and the accused equivalent ... both relate to the concentration of the fertilizer.” *Id.* at 1307; see also *Freeman*, 388 F. Supp. 2d at 1260 (also distinguishing *Insituform*).¹⁴ For the same reasons, this Court should reject Honeywell’s argument that *Insituform* legally or factually supports its “tangentiality” case.

¹³ This distinction also applies to *Cordis Corp. v. Medtronic Avenue, Inc.*, 336 F. Supp. 2d 363 (D. Del. 2004), and the other cases cited in footnote 7 of Honeywell’s trial brief. In those cases, the courts based their holdings on the patentee’s affirmative explanations during prosecution concerning the reasons for the amendments, not the patentee’s silence.

¹⁴ Honeywell’s reliance on *Vardon Golf Co. v. Karsten Mfg. Corp.*, No. 99 C 2785, 2002 U.S. Dist. LEXIS 11802 (N.D. Ill. June 27, 2002), is misplaced for the same reason. In that case, the equivalent in question (the cosmetic ring and dot on the golf club’s face) had no connection to the amendments that created the estoppel (having to do with the structural ribs in the rear cavity of the club). *Id.* at *13 (“the amendments do not implicate the ring and dot elements of the ISI irons”). Here, Honeywell’s amendments addressed the very element found to be equivalent – the use of IGV position.

E. Honeywell's Mischaracterization Of The Prosecution Record In Attempting To Invoke The Tangential Relation Criterion Should Be Rejected.

Lastly, Honeywell attempts to avoid the direct relationship between the reason for its amendments and the HSC equivalent by asserting (incorrectly) that its amendments actually added multiple limitations, not just the IGV limitation. (Hon. Br. 21) Honeywell's attempt to dismantle the IGV limitation into several limitations cannot be reconciled with the prosecution history or prior rulings in this case.¹⁵

The prosecution history shows that Honeywell added only a single limitation to the asserted claims during prosecution. Honeywell amended each of the asserted claims to add a *single* dependent claim – which consisted of the IGV limitation in each case – to the original independent claims. See 35 U.S.C. § 112 (dependent claims “specify a further limitation of the subject matter claimed”). All of the language Honeywell added to each original independent claim came from the single corresponding dependent claim. For example, Honeywell added the following dependent claim limitation from application claim 51 to original independent claim 48 to create issued claim 4 of the '194 patent.

(d) adjusting the relationship between the magnitudes of said integral and proportional control signals and the magnitudes of said parameter variations as a function of the position of the inlet guide vanes.

The addition of the above element (d) – the IGV limitation – undisputedly was the only substantive difference between the original independent claim and issued claim 4 (See Tab A). Because the IGV limitation is the entirety of what Honeywell added, it is solely responsible for the allowability of the claims.

¹⁵ Honeywell's reliance on the examiner's allowance of other claims (claims 1, 6, 17 and 18 of the '893 patent) that did not contain the IGV limitation is irrelevant. (Hon. Br. 17) Those claims include a separate limitation not contained in the asserted claims – a so-called “kicker” feature that responds, when the measured value of the flow parameter falls far below the set point, by disconnecting or interrupting the integral control signal. The fact that the examiner allowed these claims, with another differentiating feature, is not relevant to the application of estoppel to the asserted claims.

Accordingly, the Federal Circuit properly treated the IGV limitation as a single limitation and the only relevant amendment to the asserted claims: “Claims 4, 8 and 19 were rewritten into independent form, and the original independent claims were cancelled, effectively adding the inlet guide vane limitation to the claimed invention.” *Honeywell*, 370 F.3d at 1144. The Federal Circuit did not describe any other added limitations.¹⁶ Accordingly, Honeywell cannot escape the direct link between the reason for its amendments – adding the IGV limitation to overcome the prior art – and the alleged equivalent use of IGV position in the HSC system.

Moreover, even if Honeywell were correct that the amendments at issue added limitations in addition to the IGV limitation, Honeywell does not offer, much less support with evidence from the prosecution history, any argument that features unrelated to the IGV limitation were the “reason” the claims were allowed over the prior art. To the contrary, the prosecution history shows that the IGV limitation was responsible for the examiner’s decision to allow the claims. As shown above, there can be no question that the examiner allowed claim 4 of the ‘194 patent based solely on the IGV language, as the IGV language was the only language added. The language regarding IGV position is also the only added language in common between issued claim 4 of the ‘194 patent and issued claims 8 and 19 of the ‘893 patent. Accordingly, the use of IGV position was at least responsible “in part” for distinguishing the prior art, which the Federal Circuit concluded was enough to reject Festo’s attempt to overcome the presumption. 344 F.3d at 1373.

Finally, even if one of the “other features” Honeywell asserts *could have been* a basis for the examiner’s decision to allow the claims, nothing in the prosecution history suggests that

¹⁶ Consistent with its broader statement that the effect of the amendments was to add the IGV limitation to the original independent claims, the Federal Circuit also specifically defined the “inlet guide vane limitation” as including “both the claimed structure of the inlet guide vanes and their claimed function in the surge control system.” *Honeywell*, 370 F.3d at 1137 n.2. The “other features” that Honeywell now contends were added during prosecution (e.g., an “adjustable control set point”) all relate to the “claimed function” of the inlet guide vanes in the surge control system, and thus are all part of the IGV limitation.

anything other than the IGV limitation *was* responsible for the allowance. Nor can Honeywell point to anything in the prosecution history that shows *which* of the “other features” was supposedly responsible. Unlike *Insituform*, Honeywell cannot prevail on the tangential relation criterion because it failed to explain *any* reason for its amendment, much less clearly explain that the reason was unrelated to the use of IGV position. 385 F.3d at 1369-70

IV. Honeywell Cannot Establish “Some Other Reason” For Rebutting The *Festo* Presumption.

Honeywell argues that the “some other reason” prong is a “broad third way that a patent[ee] may rebut the *Festo* presumption.” (Hon. Br. 27-28) The Federal Circuit held just the opposite. In *Festo*, it explained that the “some other reason” test, “while vague, *must be a narrow one*.” 344 F.3d at 1370 (emphasis added). The Federal Circuit identified only one possible example of a valid “other reason”: where some “shortcomings of language ... prevented” the patentee from describing the asserted equivalent when it narrowed its claim. *Id.* Honeywell does not argue that any shortcomings of language prevented it from describing the asserted equivalent to the IGV limitation when it narrowed its claims. In fact, its proffered patent law expert conceded that Honeywell could have drafted a claim that would have literally covered the alleged equivalent. (Garner Dep. 168-69)

Honeywell has fashioned two new broad “other reason” tests that are contrary to Federal Circuit precedent. They do not address Honeywell’s *ability* to have drafted the claims differently, but rather focus on Honeywell’s *motivation*, or purported lack thereof, to have drafted the claims to cover the alleged equivalent. Honeywell’s made-up “other reasons” are unpersuasive and would create such a large loophole to the *Festo* presumption that they would essentially gut it.

As a threshold matter, Honeywell’s purported “other reasons” fail as a matter of law because the alleged equivalent existed in the prior art. The Federal Circuit explained in *Festo* that

“a patentee may not rely on the third rebuttal criterion if the alleged equivalent is in the prior art ” 344 F 3d at 1370. As discussed in Section II above, the alleged equivalent to the IGV limitation was in the prior art in 1982. As a result, Honeywell’s reliance on its “other reasons” should be rejected for this reason alone.

In addition, beyond this threshold failure, Honeywell’s made-up “other reasons” should also be rejected as contrary to Federal Circuit law and the facts of this case

A. Honeywell’s Reliance On A “Reasonable Patent Attorney’s” Beliefs About The Law And The Scope Of Honeywell’s Patents In 1982 Is Not Persuasive.

Honeywell’s first “other reason” is that “a reasonable patent attorney at the time would not have believed that he had engaged in a narrowing amendment by rewriting Honeywell’s original dependent application claims in independent form.” (Hon. Br. 28-29) In essence, Honeywell argues that because a “reasonable patent attorney” would not have believed that estoppel applied in 1982, it should not apply now. This is fundamentally at odds with the Federal Circuit’s decision in this case and *Festo*. Tellingly, Honeywell does not cite a single case in support of its novel theory.¹⁷

The Federal Circuit already held that Honeywell *did* make a narrowing amendment by rewriting its original claims, and thus that there is a “presumptive surrender of all equivalents to the inlet guide vane limitations ” 370 F 3d at 1144. Whether a “reasonable patent attorney” in 1982 would have *believed* he was surrendering coverage is not a reason by which Honeywell can avoid the *Festo* presumption. In fact, the Federal Circuit specifically held in *Festo* that the presumption of surrender applies retroactively “to all granted patents and to all pending litigation that has not been concluded with a final judgment, including appeals,” regardless of a patent

¹⁷ In fact, not even Honeywell’s patent lawyer expert was willing to adopt this argument in rendering his opinion on the “some other reason” criterion. (Garner Dep. 195-97 (limiting opinion on “some other reason” criterion to whether “a reasonable patent attorney would have believed that the asserted claims already literally covered the Sundstrand equivalent”))

lawyer's belief about the state of the patent law at the time of the amendment. *Festo*, 344 F.3d at 1370 n 4; *see also* 535 U.S. at 741 (stating that the "courts may presume the amended text was composed with awareness of this rule") If Honeywell were allowed to skirt the *Festo* presumption based on the legally erroneous "belief" of its paid patent lawyer expert as to whether estoppel existed, the Federal Circuit's decision in this case would be effectively overruled and its holding moot.

In any event, even under Honeywell's made-up standard, its argument is belied by the Solicitor General's brief to the Supreme Court, in connection with Honeywell's petition for *certiorari*. The Solicitor General's brief – which significantly, was joined by the Patent Office – stated that the Federal Circuit's holding that estoppel would arise on the facts here is "consistent with longstanding decisions," dating back more than 60 years, and "will not impair the reasonable expectations of current patent holders" (SG Br. at 18, Ex. 20 to Hon. Br.)

B. Honeywell's Argument That A "Reasonable Person" Would Have Believed That Claim 4 Literally Covered The APS 3200 Surge Control System Fails.

Honeywell's second "other reason" why prosecution history estoppel should not apply is that "a reasonable person would have believed that the APS 3200 surge control system . . . was literally covered by claim 4 of the '194 patent" (Hon. Br. 29) Honeywell does not (and cannot) make this argument as to the two other claims at issue – claims 8 or 19 of the '893 patent – because it did not even argue literal infringement to the jury on those claims. Honeywell's argument, at its core, is that even though the jury, this Court, and Honeywell's own lawyers concluded that the APS 3200 surge control system did not literally meet the elements of claim 4, "from a patent prosecution attorney's perspective" (i.e., the perspective of Honeywell's paid patent lawyer "expert") in 1982, the APS 3200 literally infringed claim 4 (Hon. Br. 31)

The Federal Circuit specifically rejected Honeywell's proposed "other reason" in *Biagro*. In that case, despite a finding that the claims did not literally cover the accused device, the patentee argued that its purported "belief" at the time of the amendment that the accused device literally infringed was "another reason" that prosecution history estoppel should not apply. 423 F.3d at 1307. The patentee in *Biagro* argued – like Honeywell does here – that based on its understanding of the scope of the claims at the time, it had no reason to draft a broader claim and estoppel should not apply. *Id*. The Federal Circuit rejected this argument "as merely an attempt to reargue" the court's prior ruling against the patentee that had precluded literal infringement. *Id*.

Honeywell's argument is even more tenuous than that rejected in *Biagro*. Not only did the jury reject Honeywell's argument, but as the Federal Circuit explained, "Honeywell concedes that the inlet guide vane limitation is not literally met by the accused" APS 3200. *Honeywell*, 370 F.3d at 1136. Like in *Biagro*, Honeywell's "other reason" is merely an attempt to reargue the scope of the claims and to revive a literal infringement argument that Honeywell lost and abandoned.

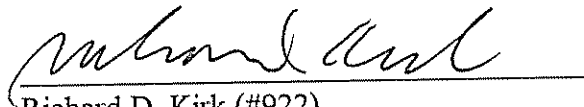
Honeywell's reliance on *Amgen* is unavailing. In *Amgen*, after analyzing an "other reason" argument similar to Honeywell's, the Massachusetts district court decided not to "rest its decision" on this criterion because its analysis was "less certain" and because it anticipated that the Federal Circuit would likely "cabin in the ['other reason'] criterion." 287 F. Supp. 2d at 159. In *Biagro*, the Federal Circuit did in fact reject the exact argument made in *Amgen*, on which Honeywell now attempts to rely. 423 F.3d at 1307. The Federal Circuit decision in *Biagro* controls.

CONCLUSION

For the foregoing reasons, HSC requests that the Court find that Honeywell has not overcome the *Festo* presumption of surrender, and enter judgment of non-infringement for HSC.

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TAB A

Application Independent Claim 48 (Rejected) ¹	Issued Claim 4, Based On Incorporation of Dependent Claim
<p>48 A method of utilizing a compressor of a gas turbine engine to power pneumatically-operated apparatus having a variable inlet air flow demand, said method comprising the steps of:</p> <p>(a) interconnecting a supply duct between the compressor and the pneumatically-operated apparatus;</p> <p>(b) flowing discharge air from the compressor through said supply duct to the pneumatically-operated apparatus;</p> <p>(c) maintaining an essentially constant minimum supply duct flow rate, despite fluctuations in the flow rate of air received by the pneumatically-operated apparatus, by exhausting air from said supply duct in response to variations therein of the value of a predetermined, flow-related parameter, the flow rate of air exhausted from said supply duct being related to the magnitude of said parameter value variations in both a proportional and time-integral manner,</p> <p>said maintaining step including the steps of providing an outlet passage from said supply duct, positioning in said outlet passage a surge bleed valve operable to selectively vary the flow of air outwardly through said outlet passage, generating an integral control signal in response to said variation in said flow-related parameter, generating a proportional control signal in response to said variations in said flow-related parameter, and simultaneously utilizing said integral and proportional control signals to operate said surge bleed valve</p>	<p>4. A method of utilizing a compressor of a gas turbine engine to power pneumatically-operated apparatus having a variable inlet air flow demand, <i>the compressor having adjustable inlet guide vanes</i>, said method comprising the steps of:</p> <p>(a) interconnecting a supply duct between the compressor and the pneumatically-operated apparatus;</p> <p>(b) flowing discharge air from the compressor through said supply duct to the pneumatically-operated apparatus;</p> <p>(c) maintaining an essentially constant minimum supply duct flow rate, despite fluctuations in the flow rate of air received by the pneumatically-operated apparatus, by exhausting air from said supply duct in response to variations therein of the value of a predetermined, flow-related parameter, the flow rate of air exhausted from said supply duct being related to the magnitude of said parameter value variations in both a proportional and time-integral manner,</p> <p>said maintaining step including the steps of providing an outlet passage from said supply duct, positioning in said outlet passage a surge bleed valve operable to selectively vary the flow of air outwardly through said outlet passage, generating an integral control signal in response to said variation in said flow-related parameter, generating a proportional control signal in response to said variations in said flow-related parameter, and simultaneously utilizing said integral and proportional control signals to operate said surge bleed valve; <i>and</i></p> <p>(d) <i>adjusting the relationship between the magnitudes of said integral and proportional control signals and the magnitudes of said parameter variations as a function of the position of the inlet guide vanes.</i></p>

¹ HSC agrees with Honeywell that the fact that application claim 51 (which contained the IGV limitation) was dependent on application claim 49, which was in turn dependent on application claim 48, is an irrelevant distinction (HWL Br. at 5 n.1) Application claim 48, shown above, incorporates the limitations of dependent claim 49

CERTIFICATE OF SERVICE

I hereby certify that on February 24, 2006, I electronically filed the foregoing document with the Clerk of Court using CM/ECF, which will send notification of such filing to Thomas C. Grimm and Julia Heaney.

I also certify that on February 24, 2006, I caused to be served true and correct copies of the foregoing document on the following in the manner indicated below:

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